

ABSTRACT OF THE DISCLOSURE

A pattern inspection apparatus includes a light source irradiating a plate having a pattern with light, a photoelectric device photoelectrically converting the optical image of the pattern, a detected pattern data generator generating detected pattern data based on a photoelectrically converted signal, a reference pattern data generator generating reference pattern data from designed data, a comparator comparing the detected pattern data with the reference pattern data, a light intensity sensor detecting a light intensity of the light, a barometric pressure sensor detecting a barometric pressure in the apparatus, a status detector detecting at least one of the light intensity and barometric pressure deviating from predetermined ranges, a data memory storing the detected and reference pattern data at the same time when the abnormal status is generated in synchronization with position data and detected values of the light intensity and barometric pressure and an output device which outputs these.